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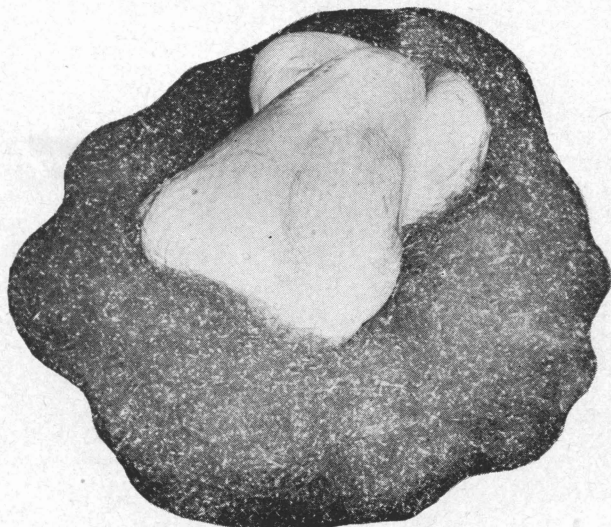
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## Merchandising TURKEYS



Issued by  
The Extension Service  
Agricultural and Mechanical College of Texas and  
the United States Department of Agriculture  
Ide P. Trotter, Director, College Station, Texas

## ACKNOWLEDGMENTS

Acknowledgment is made to personnel of the poultry department staff who made valuable suggestions, to Ross M. Sherwood, professor of poultry husbandry, for cooperative assistance in early work on boneless turkey steaks and to Roy W. Snyder, meat specialist, and Louis Franke, extension editor, for assistance in taking pictures for this publication.

## INTRODUCTION

It is a recognized fact that a high percent of the total yearly turkey consumption takes place during the holiday seasons of Thanksgiving and Christmas. There is a need to lengthen the period of time turkeys are available. It is not enough to be available, but it must be in quantities which the average family can use in its daily menus.

Turkey offered to the consumer should be processed in such a way as to meet basic fundamental requirements for sales of any food commodity. These are: Uniformity, economy, nutritious, eye appeal, easy to serve and easy to prepare. Quality of the product is not included here because there are demands for different levels of quality. Producers will bring turkeys of varying qualities to market and they must be sold. The different ways they are offered and the number of days of the year they are offered to the consumer are essential to increased consumption. *This is not intended to mean that the highest quality possible should not be attained.*

If turkey is to meet these requirements equal to or better than competitive meats 365 days a year, it seems necessary to process the turkey further than the old procedure of selling them whole as New York dressed or drawn.

There has been some work done on merchandising turkey in many different forms during the past three or four years. Some are offering disjointed turkey in one package, about the same as disjointed fryer chickens, others are offering canned turkey and then there are those offering turkey in individual pieces such as legs, drumsticks, necks, giblets, breasts, and backs. In some places the consumer can obtain smoked and barbecued turkey. When in this form it offers another sale possibility throughout the year. Half and quarter turkey have also been offered the consumer in some places. In addition to all of these there is the boneless turkey steak, which has been well received by many commercial firms and also consumers who have had an opportunity to eat turkey in this form. Possibly the reason they have been so well accepted is because they score exceptionally high on the fundamentals of food sales requirements mentioned previously.

Many requests have been received for information on the subject of year round merchandising of turkeys as a food commodity. The information given in this bulletin can be used to assist those who are interested. The procedures recommended have been used and good results obtained.

## CONTENTS

	Page
Introduction.....	3
Drawn Turkey.....	5
Halved Turkey.....	6
Quartered Turkey.....	6
Disjointed Turkey.....	7
Boneless Turkey Steaks.....	7
Fryer Turkey.....	14
Smoked Turkey.....	15
Barbecue Turkey.....	17
Canned Turkey.....	18



# Merchandising Turkeys

By  
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TEXAS A. & M. COLLEGE

## DRAWN TURKEY

Dressed and drawn turkey has been offered the consumer for many years. Not until recent years has the housewife been able to buy turkey in any other form. This practice of selling only the whole bird plus the tradition of holiday festivities have been a big influence in keeping the per capita consumption of turkey meat low as compared to other meat products.

Drawn turkey for baking and roasting should be made available at all times to the consumers where there is demand for the product. Commercial firms have used turkeys in this form throughout the year for some time but the housewife generally has not had an opportunity to buy turkey except at holiday seasons from the retail market. There has been little demand by the housewife at times other than Thanksgiving and Christmas and that is one reason why the retail market has not offered this product throughout the year. This indicates a need for processing the turkey in such a way as to have it available in smaller quantities for cooking other than the usual method of roasting.

Improvement of quality in the live turkeys offered for market in the past few years is helping to increase consumption but too many turkeys are still coming to the market poorly fleshed and finished.

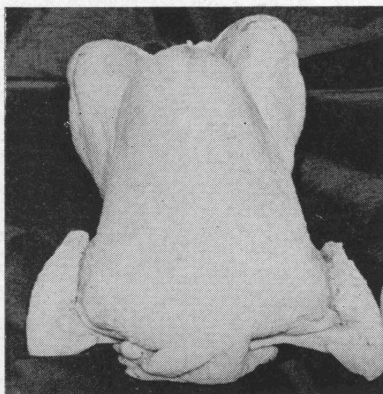


Fig. 1.—Turkey that possessed high quality when alive. It was fully fleshed and finished and was free of pin feathers. This turkey was dressed and drawn by a commercial firm using proper procedures in processing to maintain live bird quality.

Many high quality live turkeys are reduced in quality before reaching the consumer. This is done by rough handling when moving them to market, in the processing plant before killing and improper methods of processing.

Increased consumption of dressed and drawn turkeys may take place if quality is improved and then maintained through proper handling and processing. This will make available to the consumer a product with eye appeal equal to other competitive foods. Turkeys may be processed to meet these requirements if recommendations given in Texas A. and M. College Extension Service Bulletin,

B-149, "Processing Poultry", are followed. This bulletin may be obtained through the county Extension agents' office or by writing Texas A. and M. College Extension Service, College Station, Texas.

### HALVED TURKEY

Turkeys cut in halves make it possible for the consumer to buy and serve turkey more often than if it was necessary to buy a whole

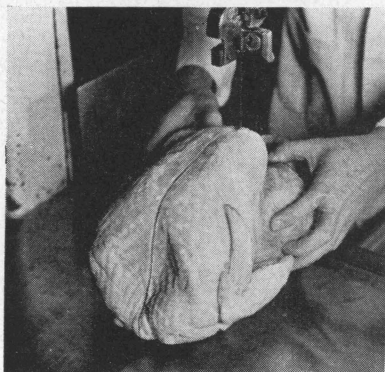


Fig. 2.—Turkey being cut in halves. This can be done before turkey is frozen, but is easier after freezing.

turkey. Half turkeys may be cooked and served with eye appeal much the same as whole turkeys.

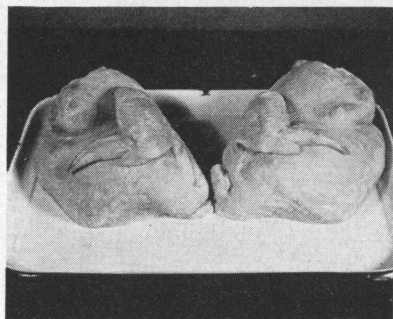


Fig. 3.—The turkey halves will look like these after being sawed.

This method of marketing turkey has only been offered the consumer during the last three or four years. Retail stores that offer this service report many additional sales. It offers the housewife a quantity of meat she can use without waste and also permits variation of food in the weekly food budget.

One of the reasons for cutting turkeys in halves is the large size of the turkey toms offered for retail sale. The markets have been selling toms several cents a pound lower than hen turkeys. When this is true and half turkey toms can be bought there is a big saving in food cost to the consumers, but from a producer's viewpoint the greater demand may increase the price on heavy turkeys.

### QUARTERED TURKEY

Turkeys when quartered offer the consumer either dark or light meat in smaller quantities than half or whole turkey. This procedure makes

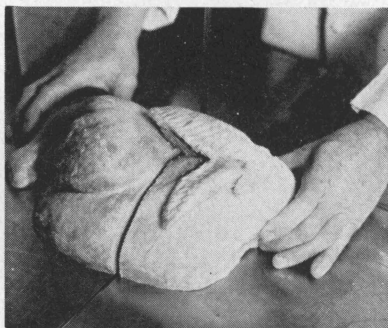


Fig. 4.—Turkey being sawed in quarters after being halved.

excellent roasting size cuts. The quarters of turkey toms will usually weigh 4 to 7 pounds each, depending upon the size of the live tur-

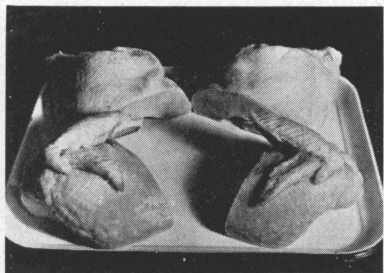


Fig. 5.—Turkey quarters will be two dark and two light meat.

key. The breast and wing quarter will weigh  $1\frac{1}{2}$  to 2 pounds more than the quarter with leg. Turkey cuts such as these lend themselves to deep freezing and are easy to keep in lockers or in home freezers.

Marketing turkey in this form is relatively new and therefore many consumers do not know its merits. Recipes and cooking procedures for turkeys in this form are being offered the consumer by commercial firms and organizations interested in the use of turkey meat throughout the year.

This product, like boneless turkey steaks, half turkey, canned turkey and disjointed turkey, lends itself to use in weekly food budgets and variations in foods used daily.

### DISJOINTED TURKEY

Some commercial firms are now offering disjointed turkey to the consumer. It is packaged about the same as disjointed broiler and fryer chickens, except all of the pieces are not in one package. This makes it possible to prepare and cook turkey meat in many different ways.

Piece turkey also lends itself to amount needed by consumer for any meal or occasion.

Turkeys used for disjointing should be well fleshed and finished. In addition, the processing needs to be properly done to insure a high quality product which possesses flavor and eye appeal.

Piece turkey is also available in many places so that the consumer can buy one or more drumsticks, thighs, wings, backs, necks, breasts or giblets.

Turkey in these forms is not available to the consumer in a high percent of retail meat departments but it does show a trend in merchandising turkey. Surveys indicate the consumer likes the opportunity of buying turkey in pieces.

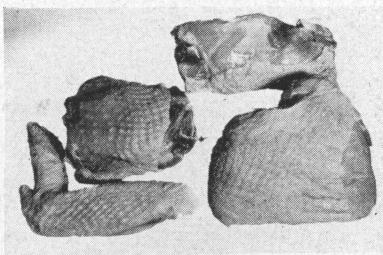


Fig. 6.—Disjointed turkey as cut for packaging by a commercial firm.

### BONELESS TURKEY STEAKS

Turkeys are easy to process into this form of turkey meat. Many good things can be said of these steaks for they are palatable, nutritious, and have eye appeal. They are uniform in size, shape, thickness, and color. There is no waste—therefore the consumer is get-

ting a product 100 percent edible. The product is easy and quickly cooked. It is easy to serve and also lends itself to serving with many other foods. Because of the size of each steak the consumer may buy at one time only enough turkey to meet the family needs for one meal. This makes the product fit well into the weekly food budget, especially for the small family and the medium to lower income group. When this method of processing is used, large turkeys are not a problem. In fact, the large toms are most economical to use.

Locker plant patrons can save space in lockers and, also, make the large birds fit into their daily menus to better advantage by having them processed into steaks.

Quality of the boneless turkey steaks will depend upon the quality of the live birds and the methods used in processing. It is, therefore, important to use turkeys under one year of age that are well fleshed and finished. The methods used in processing should be such as to maintain this quality.

There are parts of the turkey left after the breast and thigh meat has been made into steaks. The neck, back and skin along with the giblets may be used for soup stock. They are excellent for making turkey gumbo and are also delicious cooked with noodles. The wings may be fricasseed and the drumsticks may be used for such dishes as turkey salads, cream turkey, pot roast and turkey a'la creole.

*Processing Turkeys Into Steaks and Pieces:* The following pro-

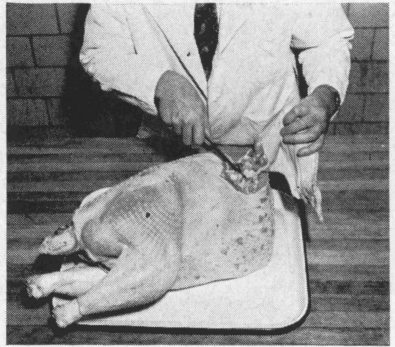


Fig. 7

cedure has been used successfully in making boneless turkey steaks, leaving other parts of the turkey in useable form.

Lay turkey on side and remove wing by cutting into joint as indicated in figure 7. Leave as much of tender breast meat on breast as possible. Turn turkey over and remove other wing.

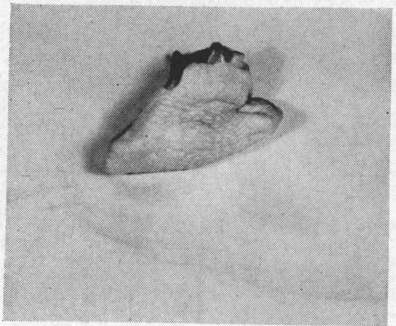


Fig. 8

After wing has been removed it will look as the one shown in figure 8.



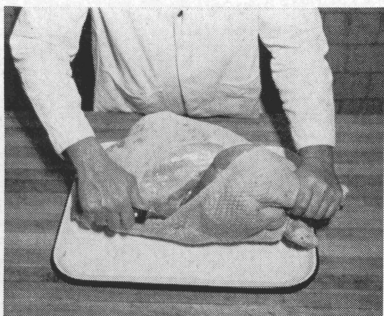


Fig. 9

Lay turkey on back and make cut as indicated in figure 9, to begin the removal of leg at hip joint.

To complete the removal of leg turn the turkey and cut as indicated.

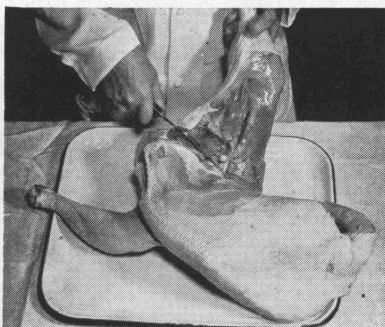


Fig. 10

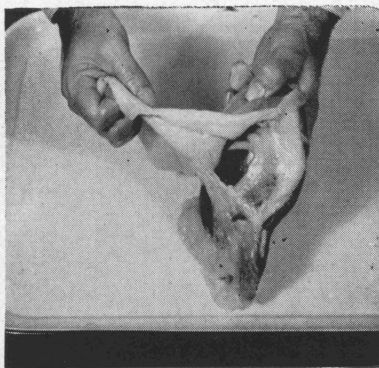


Fig. 11

After leg is removed at hip joint pull skin off thigh meat.

Cut meat around joint leaving cartilage on drumstick.

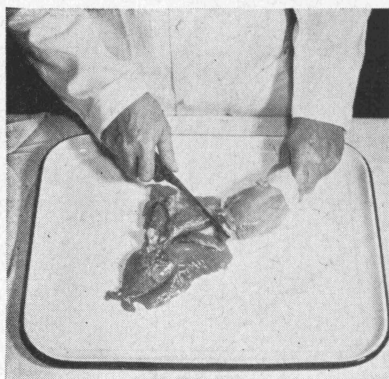


Fig. 12

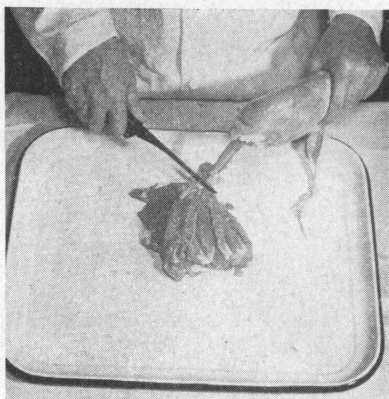


Fig. 13

Cut meat from the thigh bone.

After meat has been removed from thigh bone, separate the thigh bone from drumstick by cutting at joint.

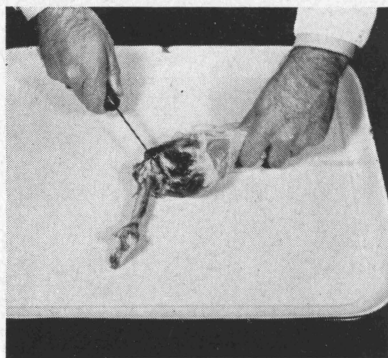


Fig. 14

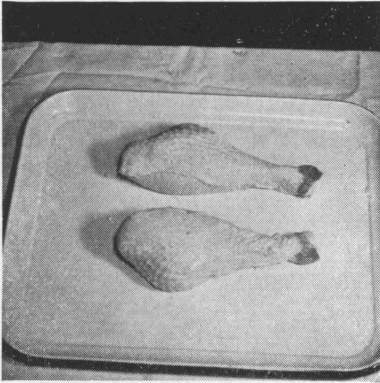


Fig. 15

Pull skin that was removed from thigh back over end of drumstick.

Cut through the flank and ribs of turkey to a point at wing joint.

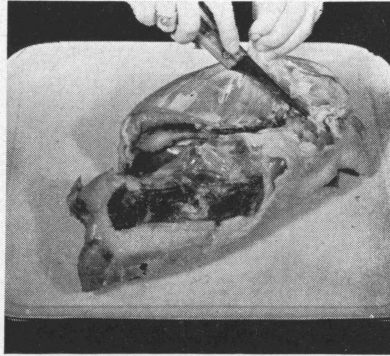


Fig. 16

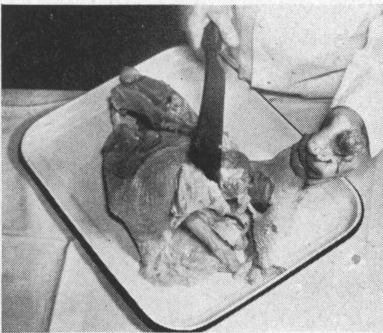


Fig. 17

Use meat cleaver or hatchet to cut bone at wing joint separating the breast from the back and neck.

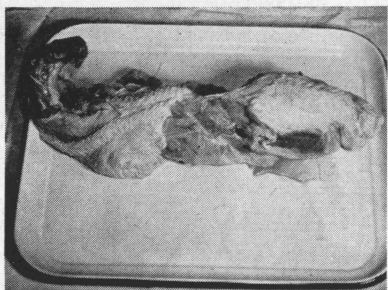


Fig. 18

When the back and neck have been separated from the breast they will look like this. Remember the skin is left on the neck and back.

Remove skin from breast. There will be only a small piece of skin. Put this with the back and neck.

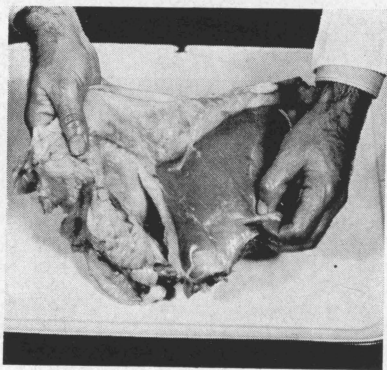


Fig. 19

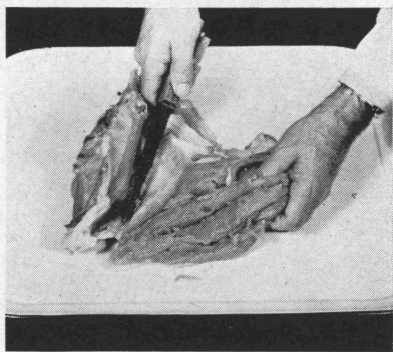


Fig. 20

Remove meat from breast bone.



Remove tissue connecting breast muscles to bony structure of body. This is important because it is undesirable for this tissue to be in the steaks.

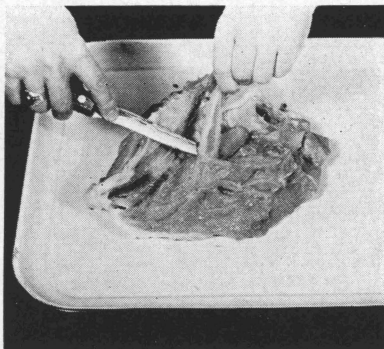


Fig. 21

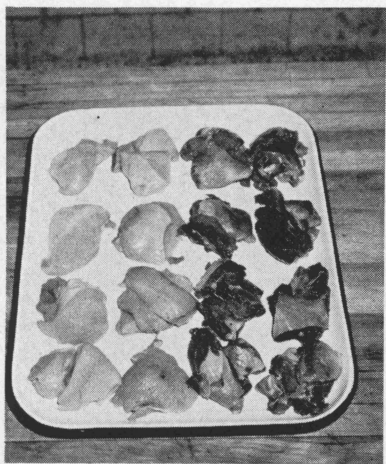


Fig. 22

Cut the light and dark meat into 4-4½ ounce size portions. Some firms do not separate white and dark meat.

Put the pieces into the machine. It will be necessary to put them through more than one time. The number will depend on machine, number of pieces in 4-4½ ounces, and the efficiency of the operator.

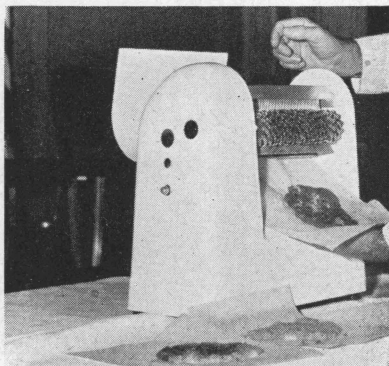


Fig. 23



Fig. 24

When the pieces of meat have become knitted together and the proper shape and thickness have been obtained, they will look like these.

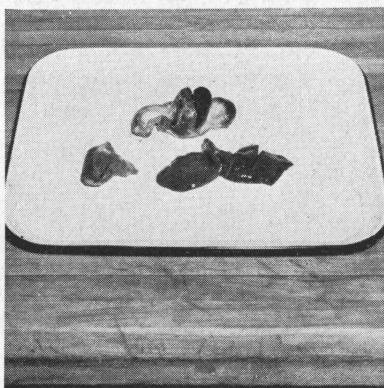


Fig. 25

The turkey is now completely processed into boneless turkey steaks and a few pieces as indicated in figures 3, 10, 13, and giblets in figure 25.

## FRYER TURKEY

Young turkeys have been used for frying in some local areas for many years. It also has been practiced to some extent by producers of turkeys for home use. It has not, however, been a common practice of producers to market turkeys

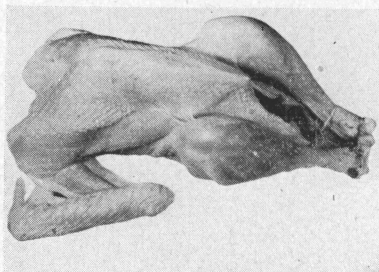


Fig. 26.—Drawn and trussed fryer turkey.

as fryers. According to research work done by the Poultry Department of Texas A. and M. College, the cost to produce a pound of fryer turkey is more than for 26-

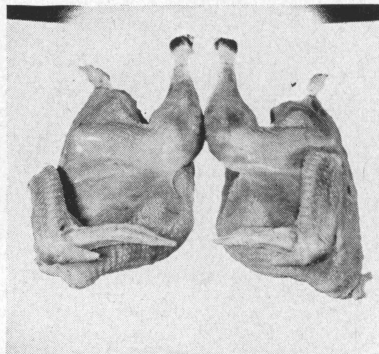


Fig. 27.—Fryer turkey halved.

to 28-week old birds. This makes it necessary to market fryer turkeys at prices above those for turkeys 26 to 28 weeks old if equal profits are to be expected.

Turkeys 10 to 12 weeks old weighing 5 to 6 pounds are the sizes most commonly used for frying. The meat is tender and is generally considered a delicacy. Where the local conditions are favorable for such a product it offers an excellent opportunity to market turkeys at seasons other than Thanksgiving and Christmas. It also offers an opportunity to lengthen the hatching period and take advantage of expense incurred to pro-

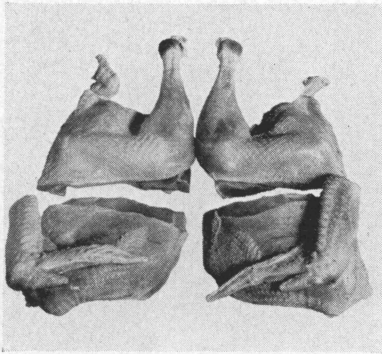


Fig. 28.—Fryer turkey quartered.

duce and market hatching eggs during the regular hatching season. Some producers are selling the toms only as fryers. This leaves the hens in the flock, which usually sell at

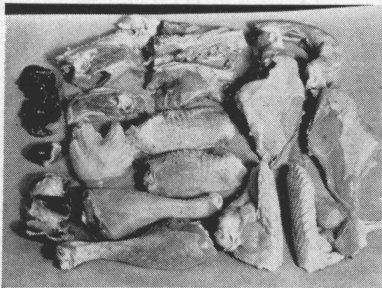


Fig. 29.—Fryer turkey disjointed.

a higher price than the toms when 24 to 30 weeks old.

Fryer turkeys are commonly served as quarters by restaurants and cafes and disjointed when used in the home. If they are to be barbecued before serving they are usually halved.

## SMOKED TURKEY

Turkey that has been thoroughly and efficiently smoked is truly an appetizing product. There is an abundance of eye appeal, flavor and aroma. When the process of smoking is complete, the meat is thoroughly cooked and is ready and easy to serve.

Turkeys used for smoking should be of good quality. They need to be well fleshed and well finished, and properly processed the same as for roasting. When this kind of turkey is used, followed by a good smoking process, the finished product will be of highest possible quality.

There are different procedures used in curing and smoking and also different ingredients used in the curing of the turkey before smoking. One successful method developed by the Texas A. and M. College Meats Laboratory is given here:

Step 1.—Chill bird to remove animal heat before pumping for curing.

Step 2.—Pump the bird with brine mixture by injecting 10 percent of its weight. Stitch with a pressure pump using small or medium sized needle. Pump bird to give uniform distribution of brine in all muscles. This will require

on each side of the bird three stitches in breast, one in thigh, one in drumstick, one in wing and one in back.

**BRINE MIXTURE FOR CURING:**  
This mixture should give a reading of 45 to 50 percent saturation when measured with a sodium chloride salometer.

10 gallons of water  
9 pounds of salt  
1 pound prague powder  
1½ pounds sugar  
4 ounces ham spice emulsion

Step 3.—After bird has been pumped, cover it with the brine mixture. Be sure bird is covered with the solution. Keep it in this solution for three days.

Step 4.—Remove bird after three days and drain thoroughly. Be sure none of the brine is left in the pockets of body cavities. Put it in stockinette and hang breast down.

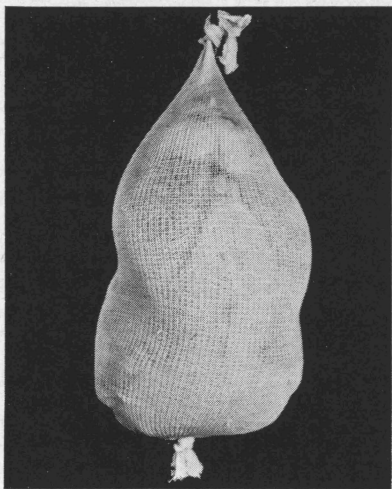


Fig. 30.—Turkey in stockinette. It has been properly dressed, drawn, and processed for smoking.

Step 5.—After it is about dry, put it in the smoke house with the heat control set at 170°F. As soon as it is completely dry, smoke can be applied.

Step 6.—Smoke to a light lustrous pecan nut brown. This usually takes 8 to 12 hours.

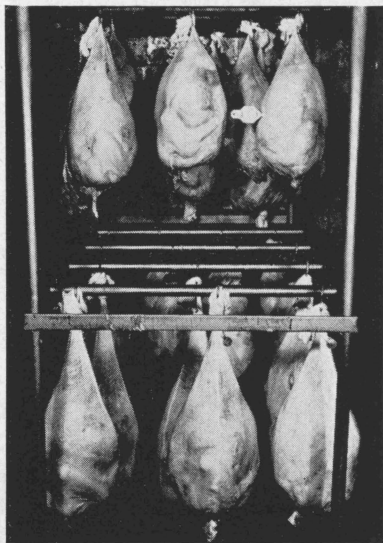


Fig. 31.—Turkeys hanging on rack in smoke house. They are hung to allow equal circulation of heat and smoke around each. Note the meat thermometer in the turkey, also its location.

Step 7.—When the desired color is obtained, increase the temperature in the smoke house to 185°F. Cook the bird until the inside temperature at the thickest breast muscle area is 160°F. To determine this heat accurately it is necessary to insert an inside meat thermometer in the bird at the thigh joints and breast muscles. Approximately 20 percent shrinkage may be expected from this process.



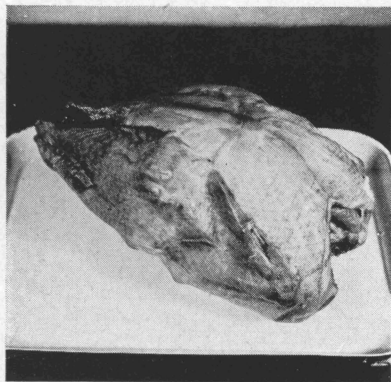


Fig. 32.—Smoked turkey fully cooked.

Step 8.—This process will cook the bird sufficiently to be eaten without additional cooking. This cooked product will not keep in ordinary refrigerator temperatures any longer than other meats such as cured ham. If the birds are to be held longer than two weeks they should be frozen, packaged and held at 0° temperature.

This and other cure mixtures have been used successfully when smoking turkeys:

- 1 gallon water
- 1¼ pounds Tender Quick

When this mixture is used the same steps as listed 1 through 8 should be followed.

### BARBECUE TURKEY

Some people prefer the flavor of barbecue to any other obtained by the different methods of cooking turkey. This method of cooking offers another way to use turkey throughout the year. It may be barbecued whole, halved, quartered or disjointed.

When buying or selecting turkeys to barbecue be sure they are

well fleshed and finished. The higher the quality, the more delicious the finished product. If turkeys are over one year old they should be precooked in the oven until tender, using the moist method of cooking.

Consumers in large cities can usually buy barbecue turkey from some one specializing in such products. For those who do not have this opportunity and those who want to prepare their own pit barbecue, these suggestions will be helpful. The following procedure for building trench, use of wood, preparation of turkey, cooking and methods of serving is given through courtesy of Short Course Department, Oklahoma A. and M. College.

**TRENCH FOR BARBECUING:** The trench in which turkey is to be barbecued can vary as to size, shape and structure to meet the needs. It should be constructed to maintain heat and moisture. For home use, a pit 3 feet deep (2½ feet below ground level and 6 inches above) 2 feet wide and 5 feet long will be ample. A wall 4 inches thick made of concrete or brick and walled inside with layer of fire brick laid in fire clay makes good construction. The top must be constructed to cover tightly in order that heat and moisture will be held. After turkey has been put in the pit and cover on top, the cracks should be covered with wet sand.

**WOOD FOR FUEL:** Black jack oak is one of the best woods for making coals. Start fire in bottom of trench and burn out wood until there is about 18 inches of coals accumulated. This will probably take about two hours.

**PREPARATION OF TURKEY:** Prepare turkey by putting either drawn whole bird, halves, quarters or pieces into stockinette. If stockinette is not available wrap in cheese cloth. Next wrap in burlap and tie with butcher twine.

When this has been done and the coals in the pit are ready, dip the wrapped turkey in water to wet the burlap thoroughly. Then place the packages on the coals and cover the trench at once and be sure to seal top by covering cracks with wet sand.

**TIME TO COOK:** Time required to cook will be about six hours, but meat can be left in longer and not overcook.

**HOW TO SERVE:** Take turkey out of pit, cut strings and unwrap. Meat may be taken off the bones and barbecue sauce and salt added to taste.

### **BARBECUE SAUCE MIXTURE**

*For 50 Pounds Meat*

- 4 quarts of catsup
- 1 quart of Worcestershire Sauce
- 1 cup of lemon juice
- 1 pound butter
- 1 pint of barbecue sauce

*For 5 Pounds Meat*

- 1 cup of catsup
- $\frac{1}{4}$  cup of Worcestershire Sauce
- 1 tablespoon lemon juice
- $\frac{1}{10}$  pound of butter
- $\frac{1}{8}$  cup of barbecue sauce

Other procedures and sauces may be used successfully. This one may more nearly meet your needs.

Prepare the turkey as for roasting. Grease bird thoroughly with

the following barbecue sauce, then salt and pepper lightly:

- $\frac{1}{2}$  pint vinegar
- 4 tablespoons of salt
- 4 tablespoons of white sugar
- 3 tablespoons chili powder
- 3 tablespoons paprika
- 1 tablespoon dry mustard
- $\frac{1}{2}$  pound butter
- 1 pint water
- A dash Cayenne

Bring these ingredients to a boil.

Put the bird in a closed pit in which coals have been made and

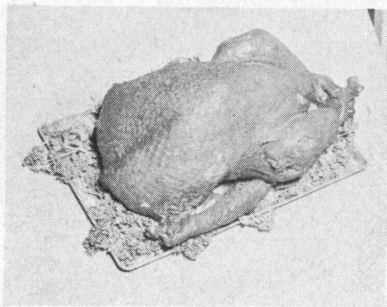


Fig. 33.—Barbecued turkey ready to be served.

the temperature is around 225 degrees. Place the bird so the drippings will not get in the fire. Do this by banking the coals on one side and placing the turkey on the other. A drip pan may be provided to catch the surplus grease from the bird. Baste the turkey each hour with the sauce. Time to cook will vary according to size of bird or pieces, usually from 4 to 8 hours.

### **CANNED TURKEY**

Turkey in cans is now available in many retail stores and it may also be bought in this form by or-

dering direct from some who have a mail order business. This offers the consumer an opportunity to buy only the amount necessary to meet their needs. It also offers turkey in different forms. This may be turkey and noodles, turkey broth,

sliced turkey, turkey pieces, turkey giblets and turkey with other products.

A few cans of these products on the pantry shelf are especially helpful when unexpected guests arrive or the need for a quick meal arises.

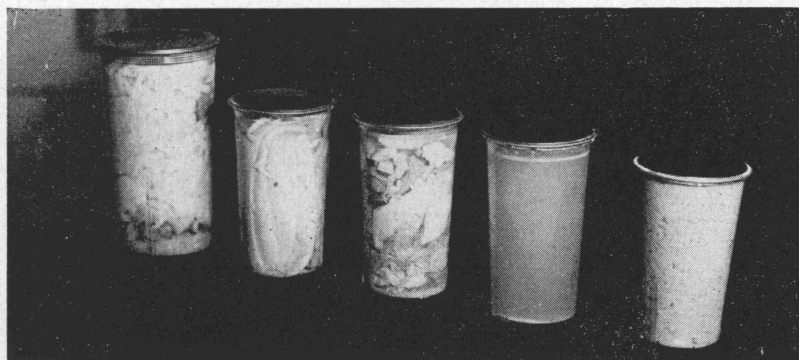


Fig. 34.—Canned turkey products.

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Cooperative Extension Work in Agriculture and Home Economics, Agricultural and Mechanical College of Texas and United States Department of Agriculture Cooperating.  
Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.  
10M-6-48